0.00

0.00

110

\*11**0**\*

HAAS CNC vertical machine #1

Memo

MACHINE AS PER FQILIO FA447

DEBURR AS PER DWG

An 2T 13-07-07

(A0)

NCR: Yes / No

## **WORK ORDER NON-CONFORMANCE / UPDATE**

DO(A: Sul Date: 13-7-12

										QA Closed:	All Page	10 / 12
Work Order	. /	015	76		DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part No	. /c . De . 13-	3260 284	4-1		Rework Scrap Use-as-is Work Order Update	T	N herm	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	otion of work order update	lnit		Act	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief	Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved	4 1707 08	110	×12	slightle Lyhten R.C. i	Ases of 2.525 rod I bent from ing of the vise all of Better hold; I tooly	3.07	8 2 1 7.08	This will Prevent t From sir outo the	NOT THE COUNTER TING PROPERLY BRACKET.	13-07-08	16 16 13/67/16	365 Jorlar
		<u> </u>	1		FA	AULT C	CATE	ORY				
Landing	g Gear				General					_	_	
-	Bending Centre No Cracks Crushed/		ntric to	O/S	Bend BOM/Route Broken/Damaged Burrs	Ha Ins	•	re on incomplete ons incomplete/i	Undoar	Ovalized Over/Under Part Incorred Part Lost/Mi	it 🗀	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	Cuffs	cimped			Contamination	∐м;	ainte	nance	·	Part Moved	_	
_	Heat Trea				Countersink	<b>├</b> ─┤	islabel			Positioned V		٦
	Inspection	•	Tube		Cut Too Short	$\mathbf{H}$	isread		L	Power Loss/	Surge	Other
	Ripples in			<u> </u>	Drill Holes	_	fset					
_	Torque W			<b>}</b>	Drawing	$oldsymbol{oldsymbol{eta}}$		alibration				
-	Turning S			-	Finish	⊢		equence				
	Wave/Tw	ist in Tuk	e		Folio	Ou	ıtsıde	Dimensions				

## \*101576\*

Page 2

May-13-13 1:09:03 PM

Stop   *NS2*	Item ID: Revision ID:	D3264-1			Accept	*1	<b>1</b> 900	<b>040</b>	100	<b>)</b> *	Setup St			S1*
Required Date: 5/30/13 Req'd Qty: 6.00 *6* Customer:  Reference:  Approvals: Process Plan: Date: Tooling: Date: Stop *NR1  QC: Date: SPC (Y/N): Date: *NR2  Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Code Qty Qty Number Stamp  120 QC2- Inspect parts off machine FAI/FAIB 0.00  *120 Memo 0.00	Item Name:	Bracket									Si	iop	*N:	S2*
Reference:  Approvals: Process Plan: Date: Tooling: Date: Stop *NR1  QC: Date: SPC (Y/N): Date: *NR2  Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Description Run Hours Code Qty Qty Number Stamp  120 QC2- Inspect parts off machine FAI/FAIB 0.00  *120 Memo 0.00	Start Date:	5/13/13	Start Qty: 6.00	*6*			Cust Item I	D:						
Reference:  Approvals: Process Plan: Date: Tooling: Date: Stop QC: Date: SPC (Y/N): Date: Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Description Run Hours Code Qty Qty Number Stamp 120 QC2- Inspect parts off machine FAI/FAIB 0.00  *120 Memo 0.00	Required Date	e: 5/30/13	Req'd Qty: 6.00	*6*			Customer:							
Approvals: Process Plan: Date: Tooling: Date: Stop VC: Date: SPC (Y/N): Date: Stop *NR2*  Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Code Qty Qty Number Stamp  120 QC2- Inspect parts off machine FAI/FAIB 0.00  *120 Memo 0.00	Reference:													
QC: Date: SPC (Y/N): Date: *NR)  Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Description Run Hours Code Qty Qty Number Stamp  120 QC2- Inspect parts off machine FAI/FAIB 0.00  *120 Memo 0.00	Approvals:	Process Pl	lan:	Date:	Tooling:		Da	ite:	- 				*NI	R1*
Work Center ID  Description  Run Hours  Code Qty Qty Number Stamp  0.00  *120  QC2- Inspect parts off machine FAI/FAIB  O.00  Memo  O.00		QC:		Date:	<b>SPC (Y/N):</b>		Da	ite:			31	ųυ,	*NI	R2*
*120* QC Memo 0.00		ID				rs	Tool ID	Tool #			-			Insp. Stamp
QC Memo 0.00	120		QC2- Inspect parts off n	nachine FAI/FAIB	0.00					D.i	_			_
· ·			Memo		0.00					£=	25	( -	<u>ہ - ر</u>	7-07
	Quality Control									. 3*				
130 QC8- Inspect parts - second check 0.00	130		QC8- Inspect parts - sec	ond check	0.00	۸								DAS:
*130* 13/07/08 12 ¢ 08			, , ,		¢	D. a	13/07	108		12	œ d			0A\$ 0 <b>8</b>
QC Memo 0.00			Memo		0.00		- 1	1			/=			
Quality Control	Quality Control							4						
140 Chemical Conversion Coat per QS1005 4.1 0.00	140		Chemical Conversion Co	oat per QS1005 4.1	0.00					.0	1	M	<del></del>	C
*140 * Chemical Conversion Coal per QS1003 4.1										6	14	与人	5.4	7
HandFinish Memo 0.00			Memo		0.00									

									DQA:	Date:	
NCR: Yes	s / No				WORK ORDER NON-C	ONFOR	MANCE / UP	DATE	QA Closed:	Date:	
Work Order:					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part No.					Rework Scrap Use-as-is Work Order Update		Skid-tube  Machining  moforming  Large Fab	Crosstube Small Fab Finishing Composite	1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspecto
Ooc/Data											
quip/Tooling											
Operator		ļ									
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etup											
Other			1								
rocess	]						}				
upplier	1		1								•

			FAUL	LT CATEGORY			
Landing	Gear	General		_		_	
	Bending	Bend		Grain		Ovalized	Pressure/Forced
	Centre Not Concentric to O/S	BOM/Route		Hardware	L	Over/Under tolerance	Temperature/Cure
	Cracks	Broken/Damaged		Inspection Incomplete		Part Incorrect	Weld
	Crushed/Crimped	Burrs		Instructions Incomplete/Unclear		Part Lost/Missing	Wrong Stock Pulled
	Cuffs	Contamination		Maintenance		Part Moved	
	Heat Treat	Countersink		Mislabeled		Positioned Wrong	
Γ	Inspection Strip in Tube	Cut Too Short		Misread		Power Loss/Surge	Other
Γ	Ripples in Bend	Drill Holes		Offset			
	Torque Waves in Extrusion	Drawing		Out of Calibration			
	Turning Sequence	Finish		Out of Sequence			
	Wave/Twist in Tube	Folio		Outside Dimensions			

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Training Unapproved

<i>*</i> ▶	i i				•			
<b>Work Ord</b> <i>May-13-13 1:0</i>			3264-1	*101	1576*		217572 2 T	Page 3
Item ID: Revision ID: Item Name:	D3264-1 Bracket		101576	Accept	*N90004010	↑* Setup	Start Stop	*NS1* *NS2*
Start Date: Required Date Reference:	5/13/13 e: 5/30/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item ID: Customer:		<b>C</b>	
Approvals:		lan:			Date:	Run	Start Stop	*NR1* *NR2*
Sequence ID/ Work Center 150 *150* Powdercoat Powder Coating		Operation Description White Gloss(Ref:4.3.5.1) Memo	1) per QS1005 4.3-Alum		Tool ID Tool # Plan Code Time 750  P 3201	Accept Rej Qty Qty	, ]	Reject Insp. Number Stamp
160 *160* QC Quality Control	,620	QC3- Inspect Part Finis  Memo	h	0.00 0.00	ime 18-20	13+_	4	M 13/07/10
170 *170* Packaging Packaging		Identify as per dwg & S  Memo	tock Location:874	0.00			<del> </del>	SP 13-7-10

NCR: Y	res / No	)			WORK ORDER NON-C	CONF	ORN	MANCE / UPDAT	ΓE			
										QA Closed:	Date	<u> </u>
Work Orde	er:				DISPOSITION				AGAINST DEF	PARTMENT	/PROCESS	
Part N					Rework Scrap Use-as-is		ſ	Machining S	rosstube Small Fab Finishing		Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	No				Work Order Update			~ <del>  </del>	omposite		Supplier	
Root				Descri	ption of work order update	Init	ial	Action		Sign &		
Cause	Date	Step	Qty	1	or Non-conformance	Chief	Eng	Descriptio	on	Date	Verification	QC Inspector
Doc/Data									ĺ			
Equip/Tooling												
Operator												
Material												
Setup												
Other												
Process												
Supplier									1			
Training							:					
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						AULT C	ATE	GORY				
Landir	ng Gear			_	General						<u></u>	٦
	Bendin	_			Bend		ain		<u> </u>	Ovalized		Pressure/Forced
1		Not Conce	ntric to	o/s	BOM/Route	$oldsymbol{oldsymbol{ o}}$	rdwa			Over/Under		Temperature/Cure
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		d/Crimped		<u> </u>	Burrs			ions Incomplete/Uncle	<del></del>	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs			<u> </u>	Contamination	$\vdash$		nance 	<del>-</del>	Part Moved		
	Heat Ti			<u> </u>	Countersink	<del></del>	slabe			Positioned W	_	Joseph
	<b>⊢</b> →	ion Strip in	Tube	<u> </u>	Cut Too Short	$\mathbf{H}$	sread			Power Loss/S	surge	Other
	<b></b> -	in Bend		<u> </u>	Drill Holes	-	fset		-			
		Waves in I		n	Drawing	—		Calibration	-			
	Turning	Sequence	)	1	lFinish	I IOu	it of S	equence				

Outside Dimensions

DQA:

Date:

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Wave/Twist in Tube

Folio

X	/ork	Order	ID	101	576
V۱	Ork	Oraer	' 1 I <i>I</i>	101	2/0

Quality Control

\*101576\*

Page 4

May-13-13 1:09:03 PM Accept \*N900040100\* Setup D3264-1 Item ID: **Revision ID:** Bracket Item Name: 5/13/13 Start Qty: 6.00 **Cust Item ID:** Start Date: **Reg'd Qty:** 6.00 **Customer:** Required Date: 5/30/13 Reference: Run Start Date: **Tooling:** Date: Approvals: **Process Plan:** Stop Date: SPC (Y/N): QC: Date: Reject Tool # Plan Reject Set Up/ Tool ID Accept Insp. Sequence ID/ Operation Qty Number Stamp Code Qty Work Center ID Description **Run Hours** QC21- Final Inspection - Work Order Release 0.00 180 \*180\* 0.00 QC Memo

R(B-01-10

											DQA:	Date	:
NCR:	Yes	/ No				WORK ORDER NON-	CO	NFORM	MANCE / UF	PDATE		<del></del>	
										=	QA Closed:	Date	•
Work Ord	oŕ.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Work Old	C1.					Rework '	7		Skid-tube	Crosstube	1	Water Jet	Engineering
Part I	No.					Scrap	1	4	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	•	-				Use-as-is	]	Therm	noforming	Finishing	Rec/Stor	re/Packaging	Other
NCR I	No.					Work Order Update	]		Large Fab	Composite	]	Supplier	
Root					Descri	ption of work order update		Initial	A	ction	Sign &		
Cause		'. Date	Step	Qty	٠, (	or Non-conformance	Ct	nief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data	L.												
Equip/Tooling	Ш					•	1						
Operator	Ш		İ										
Material	Щ												
Setup			ļ										
Other	Ш	•	ļ ·										
Process	Ш												
Supplier	Ш					•							
Training	Щ												
Unapproved			<u> </u>	L			<u> </u>						
		_			<del></del>		AUI	LT CATE	GORY				
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,	$\vdash$	Bending				Bend	$\vdash$	Grain			Ovalized		Pressure/Forced
	<u> </u>	Centre N	ot Conce	ntric to (	<sup>D/S</sup>	BOM/Route	$\vdash$	Hardwa	re on ព្រឹទ្ធិហាplete ្ច		Over/Under	<del></del>	Temperature/Cure
	$\vdash$	Cracks			ļ	Broken/Damaged	<u> </u>				Part Incorred	···-	Weld
	-	Crushed/	Crimped		<u> </u>	Burrs	-	-	ions Incomplete,	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	-	Cuffs	_		<u> </u>	Contamination	$\vdash$	Mainte		· /	Part Moved		
	_	Heat Trea				Countersink		Mislabe		<u> </u>	Positioned W	_	Jour
	-	Inspectio	•	Tube	<u> </u>	Cut Too Short	$\vdash$	Misread	l	<u> </u>	Power Loss/	Surge	Other
1	l	Ripples in	n Bend		1	Drill Holes	1	Offset					

Out of Calibration
Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

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## **Picklist Print**

May-13-13 1:09:02 PM

Work Order ID:

101576

Parent Item:

D3264-1

Parent Item Name:

Bracket

**Start Date:** 5/13/13

Required Date: 5/30/13

Start Qty: 6.00

Required Qty: 6.00

Comments

IPP A04.09.02New issueKJ/JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B1.250X04.500		Purchased	No				f	3.2534		3			
6061-T6 Bar 1.25 X 4.50									· Mandantons agrar-a	K	<u> </u>	<u>ኣ .                                   </u>	1-0
				Location		Loc Oty	<u>Lo</u>	c Code			, (	,	
				MAT004		3.2534			<u> </u>		·		
				112628	8	1.4834							
				121380	)	1.77							
				1261	60				~	16°			

Page 1

							•					DQA:	Da	te:	`.	•
NCR:	'es	/ No					WORK ORDER NON-	COI	NFORI	MANCE / UPE	DATE	QA Closed:		ta:		,
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Part N	•					•	Rework Scrap Use-as-is		ļ	Skid-tube Machining Moforming	Crosstube Small Fab Finishing	<del>_</del>	Water Jet d. Eng. Coor. re/Packaging		Engineering Quality Other	
NCR N	lo.					•	Work Order Update	]	ı	Large Fab	Composite	]	Supplier	$\overline{}$		
Root					Des	cri	otion of work order update		Initial	Acti	on	Sign &			·	
Cause	`	Date	Step	Qty			or Non-conformance	Ch	nief Eng	Descri	iption	Date	Verificatio	n	QC Inspect	or
oc/Data quip/Tooling perator faterial etup other rocess upplier raining napproved																
							F	AUL	T CATE	GORY						
Landi	ng (	ear					General		-			<b>-</b>	,			
		Bending Centre No Cracks Crushed/O Cuffs Heat Trea Inspection	Crimped t n Strip in	,	o/s		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		Instruct Mainte Mislabe Misreac	on Incomplete ions Incomplete/U nance led	nclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong		Pressure/Forced Temperature/Co Weld Wrong Stock Pu Other	ure
		Ripples in					Drill Holes		Offset							
		Torque W			n	L	Drawing		4	Calibration						
		Turning So	equence			1	Finish		Out of S	equence						

Outside Dimensions

Wave/Twist in Tube

Folio

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DART AEROSPACE LTD	Work Order:	101576
Description: Bracket	Part Number:	D3264-1
Inspection Dwg: D3264 Rev: A		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing		Actual			Method of	
Dimension	Tolerance	Dimension	Accept	Reject	Inspection	Comments
0.687	+/-0.010	.690	-		ven	27-4
0.063	+/-0.010	.060				
0.125	+/-0.010	-122	/			
0.875	+0.010/-0.020	,885				
0.062	+/-0.010	.064				
R0.03	+/-0.030	-070				
R0.13	+/-0.030	.130				
1.00	+/-0.030	1.010				
0.125	+/-0.010	.125				, , , , , , , , , , , , , , , , , , , ,
0.600	+/-0.010	-600		,		
4.000	+/-0.005	4.000				
0.750	+/-0.010	.748				
Ø0.194	+0.005/-0.000	.195				
<i>E</i> <b>5</b> 0						***
5.50	+/-0.030	55.501				**************************************
0.125	+/-0.010	.125				
0.063	+/-0.010	.063				
R0.25	+/-0.030	. 250				
4.27	+/-0.030	4.270				
R0.30	+/-0.030	.300	/			

DAS			
Measured by: 27 02	Audited by: 5	Prototype Approval:	N/A
Date: 13 - 07	Date: 13 07 68 9-89	Date:	N/A

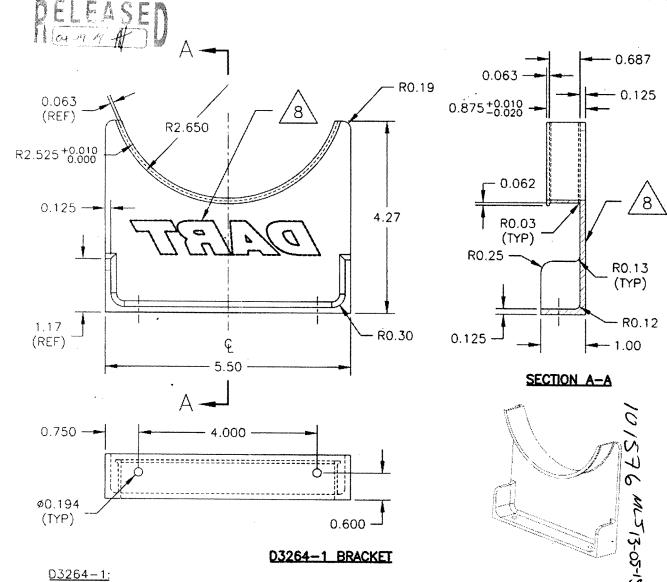
Rev	Date	Change	Revised by	Approved
Α	04.09.03	New Issue	KJ/JLM	1,1
В	05.04.26	Ø0.194 was Ø0.208; dimensions removed	KJ/JLM	
С	07.10.10	Tolerance for 0.875 revised	KJ/EC/DD	1/2
			77	1-8-2

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DESIGN	衬	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHEC	KED .M	APPROVED	DRAWING NO.	REV. A
	#	#	D3264	SHEET 1 OF 1
DATE		······································	TITLE	SCALE
04.0	)4.20		BRACKET	1:2
Α		04.04.20	NEW ISSUE	



- 1) MATERIAL: 6061-T6/T651 (QQ-A-200/8 OR QQ-A-225/8) (REF. DART SPEC. M6061T6B)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 6) PART IS SYMMETRIC ABOUT CENTERLINE
- 7) IDENTIFY WITH DART P/N & B/N USING FINE POINT PERMANENT MARKER 8) ENGRAVE DART LOGO AS SHOWN USING 0.75 HIGH x 0.010 DEEP (MAX) LETTERS WITH (MIN) TOOL RADIUS OF 0.25

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